METHOD AND SYSTEM FOR DISTRIBUTING INTELLIGENT NETWORK SERVICES IN A MOBILE SYSTEM

FIELD OF THE INVENTION

The present invention relates to a method and system for distributing IN services to a mobile network such as the GSM (Global System for Mobile Communications) or GPRS (General Packet Radio Service) network or any packet data network.

BACKGROUND OF THE INVENTION

Currently, competing telecommunication network operators feel a strong need to differentiate. This may be achieved by sophisticated operator and provider specific telecommunication services. However, the support of non-standardized services within a strong standardized system such as the GSM cannot be solved easily.

To achieve this, the CAMEL (Customized Applications for Mobile network Enhanced Logic) feature has been provided in the GSM system in order to allow network operators to provide access to all the subscribed services including operator specific services even when the user roam internationally. Furthermore, the CAMEL feature introduces IN technology to GSM networks to thereby strengthen the GSM service delivery capabilities. The CAMEL feature is not a supplementary service, it is a phased network feature, which aligns with the IN SSF/SCF (Intelligent Network Service Switching Function / Service Control Function) interface.

However, according to the CAMEL features, IN services are executed only in the home network of a subscriber. Thus, the signaling load through the home network increases due to the downloading of widely used IN services at the home network. Moreover, some IN services may require components in the visited network, because e.g. in the case of charging services, a part of the service logic is known only in the visited network and may not be revealed to the home network.

It is to be noted that, throughout the present invention, IN designates any solution in which a call, connection or session processing node contacts a service control function which issues instructions to the respective node. The contact to the service control function is based on a trigger information stored in the respective nodes. The trigger information may specify situations in the course of a call, connection or session handling. The service control function may be internally distributed. Moreover, the corresponding IN protocol could be any protocol between a controlling entity, such as a service controller (e.g. CAMEL Service Environment, CSE), responsive to a triggering from a call, and a session or connection processing node. The IN protocol may be e.g. an object oriented interface where the operations are object methods or invocations.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a method and system for distributing IN services,

by means of which IN services may also be executed in the visited network.

This object is achieved by a method for distributing IN services to a mobile network, comprising the steps of: providing a service trader function in the mobile network, the service trader function providing a location information of distributed IN services; checking the service trader function, when a location update procedure is performed; and updating a service trigger information in accordance with the checking result.

Additionally, the above object is achieved by a system for distributing IN services to a mobile network, comprising: service trader means for providing a location information of distributed IN services; location register means for checking the service trader means in response to a location update procedure, wherein the location register means is arranged to update a service trigger information in accordance with the checking result.

Accordingly, a location information of a triggered IN service can be obtained at the home network of the corresponding subscriber, such that a corresponding service trigger information can be updated at the home location register of the subscriber and supplied to the visitor location register of the visited network, to thereby perform downloading of the IN service at the visited network.